§ 23.1507 Operating maneuvering speed.

The maximum operating maneuvering speed, $V_O$, must be established to ensure the crewmembers as prescribed in §§23.1541 through 23.1589.

[Amtd. 23–21, 43 FR 2319, Jan. 16, 1978]

§ 23.1505 Airspeed limitations.

(a) The never-exceed speed $V_{NE}$ must be established so that it is—

(1) Not less than 0.9 times the minimum value of $V_D$ allowed under §23.335; and

(2) Not more than the lesser of—

(i) 0.9 $V_D$ established under §23.335; or

(ii) 0.9 times the maximum speed shown under §23.251.

(b) The maximum structural cruising speed $V_{MO}$ must be established so that it is—

(1) Not less than the minimum value of $V_C$ allowed under §23.335; and

(2) Not more than the lesser of—

(i) $V_C$ established under §23.335; or

(ii) 0.89 $V_{NE}$ established under paragraph (a) of this section.

(c) Paragraphs (a) and (b) of this section do not apply to turbine airplanes or to airplanes for which a design diving speed $V_D/M_D$ is established under §23.335(b)(4). For those airplanes, a maximum operating limit speed ($V_{MO}/M_{MO}$, airspeed or Mach number, whichever is critical at a particular altitude) must be established as a speed that may not be deliberately exceeded in any regime of flight (climb, cruise, or descent) unless a higher speed is authorized for flight test or pilot training operations.

(2) $V_{MO}/M_{MO}$ must be established so that it is not greater than the design cruising speed $V_C/M_C$ and so that it is sufficiently below $V_D/M_D$, or $V_D/M_{DF}$ for jets, and the maximum speed shown under §23.251 to make it highly improbable that the latter speeds will be inadvertently exceeded in operations.

(3) The speed margin between $V_{MO}/M_{MO}$ and $V_D/M_D$, or $V_D/M_{DF}$ for jets, may not be less than that determined under §23.335(b), or the speed margin found necessary in the flight tests conducted under §23.253.